Hovsepian v. Apple, Inc.

Doc. 293 Att. 3

Exhibit D

Dockets.Justia.com

JUN 17 1991 PAT. & TRADEMARK

80.00 + 130 RECEIVED 262

JUN 21 1991

GROUP 260

PATENT
Attorney Docket No. 02473.0001-00000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#4

In re the application of	
Paul Yurt, et al.	
Serial No. 07/637,562	Group Art Unit: 262
Filed: January 7, 1991	Examiner:
For: AUDIO AND VIDEO TRANSMISSION AND RECEIVING SYSTEM	

Hon. Commissioner of Patents
and Trademarks
Washington, DC 20231

Sir:

PETITION TO MAKE SPECIAL UNDER
M.P.E.P. § 708.02(VIII)

Applicants hereby petition the Commissioner of Patents and Trademarks under M.P.E.P. § 708.02 (VIII) to make this application special and receive accelerated examination. In accordance with that section, Applicants have enclosed a check for $80.00 to cover the fee for this petition as set forth in 37 C.F.R. § 1.17(i). If any additional fees are required in connection with the filing of this Petition, please charge those fees to Deposit Account No. 06-916.

All claims presented for examination are believed to be directed to a single invention. If, however, the Examiner requires a restriction, Applicants provisionally elect for prosecution whichever group of claims contains method claims 18-21.

Also in accordance with M.P.E.P. §708.02 (VIII), Applicants affirm that a preexamination search has been made

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

080 GS 06/20/91 07637562 1 130 80.00 CK

by an attorney who conducted searches in class 358, subclass 86 and class 455, subclasses 4, 5, 86, 102, 135, and 136.

The following references were developed during the searches and during subsequent investigations, and a copy of each of these references is enclosed along with a copy of PTO Form FB-A820 listing these references.

DESCRIPTION OF THE CLAIMED INVENTION

The present invention is directed to an audio and video transmission and receiving system in which the user controls the access and the playback operations of selected material. The present invention affords the user greater access to and control over audio and video information than is possible in conventional systems. With the present invention, a user can request audio and video information to be sent to a selected destination. Further, the user is not constrained to having programs played at a particular time because the system has a buffering capability. By employing such buffering, the user has individualized control over the replay of requested programs. Moreover, requested programs are sent to the user in a compressed format. This enables the system to send requested programs to users in a relatively short time period, and allows users to store large quantities of requested material for playback at a desired time.

The entire system includes a transmission system and a reception system. The transmission system includes a source material library from which a user makes a selection. The selected program is processed and compressed for storage in a

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

compressed data library. The system control computer controls access to programs stored in the compressed data library and controls transmission of selected programs to a user.

Once a selected program is transmitted, the reception system of the present invention receives the program and buffers it in a storage section. Because the program is buffered, the user can choose to replay the stored program whenever desired. When replay is requested, the program is decompressed and played back in real time at the receiving device requested by the user.

Figs. 2A and 2B of the application are detailed block diagrams of a preferred implementation of the transmission system of the present invention. Fig. 2B shows an implementation of the compressed data storing means recited in claim 1 as the compressed data library 118. Fig. 6 is a block diagram of a preferred implementation of the receiving system of the present invention. Fig. 6 shows an implementation of the storing means required in claim 22 as element 203. Fig. 7 is a flowchart of a preferred method of distribution which shows the buffering step at step 418.

Claims 1-17 are directed to a transmission system for providing information to remote locations. The system recited in those claims includes library means, for example source material library 111, for storing items. A requested program is encoded in the identification encoding means, for example identification encoder 112, which assigns the requested program with a unique identification code. The requested program is also converted by the converting means, for example converter 123, and ordered into a sequence of addressable data block by the ordering means, for

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

example time encoder 114 and precompression processor 115. Subsequently, the program is compressed by compression means, such as compressor 116, and stored in the compressed data storing means, which may be compressed data library 118. The identification means, the conversion means, the ordering means, and the compressed data stores storing means will be collectively referred to as preprocessing elements. Transmitter means, for example transmitter format means 119 and transmitter 122, transmit the requested program to the user.

Claim 7 calls for a system control interface means for generating a visually-perceptible list of the items available in the compressed data library, and library access interface means, which may be library access interface 121, which receives transmission requests and retrieves formatted data blocks stored in the compressed data library means.

Claims 18-21 cover a distribution method responsive to user requests identifying information to be sent from a transmission system to remote locations. This is shown in Figure 7. The distribution method of independent claim 18 includes the steps of processing audio and information for storage in a compressed data form (steps 413a-413e), storing audio and video information in a compressed data form (step 414) and user request of the stored information for transmission to a selected remote location (step 415). The method also includes the steps of sending the compressed information to a remote location (step 416) and receiving it there (step 417). After reception, the distribution method includes buffering the received information (step 418) and

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

playing it back in real time at a time requested by the user (step 419). The distribution method recited in claim 21 further includes, the step of storing a list of items available to the user from at least one compressed data library, and providing the user with the list so that the user may remotely select a particular item for transmission.

Claims 22-32 are directed to a receiving system responsive to a user input identifying an item stored in a source material library to be played back to the subscriber at a location remote from the source material library, the item containing information to be sent from a transmitter to the receiving system. The reception system 200 comprises transceiver means, such as transceiver 201, which receives requested information from the transmitter as compressed formatted data. The received information is converted into a format suitable for storage and playback in real time in the receiver format conversion means, which may be receiver format converter 202, and then stored as compressed data in the storage means, for example storage 203. When playback is requested, the decompressing means, for example audio decompressor 209 and video decompressor 208, decompresses the information and the output conversion means, such as output converter 206, plays back the decompressed information in real time at a time specified by the user.

As recited in claim 27, the output data conversion means further comprises digital video output means, for example video output converter 211, and analog video output means, for example analog video output converter 213. According to claim 30, the

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

output data conversion means also includes digital audio output means, for example digital audio output converter 212, and analog audio output means, for example analog audio output converter 214. Claim 32 recites that the transceiver means, such as transceiver 201, receives information via any one of telephone, ISDN, broadband ISDN, satellite, common carrier, computer channels, cable television systems, MAN, and microwave.

DETAILED DESCRIPTION OF THE REFERENCES

A. REFERENCES CITED IN THE SPECIFICATION

1. Lang, U.S. Patent No. 4,963,995

Lang, which is discussed in the Background of Invention portion of the specification, discloses an audio/video transceiver apparatus (VCR-ET) that includes a compression capability. The VCR-ET of Lang is an improved audio/video recorder which has "added features and functions which significantly enhance its usefulness and functionality." See col. 1, lines 65-68. Specifically, Lang discloses an audio/video transceiver with the capability of editing or copying from one video tape to another using only a single tape deck. Lang further discloses a VCR-ET which can re-transmit a program to a second VCR-ET. See Col. 7, lines 60-64.

Lang does not disclose a transmission system as recited in independent claim 1 because Lang does not teach or suggest a transmission system for providing information to remote locations which includes library means for storing items. Lang also does not teach or suggest an identification encoding means for

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202 408 4000

retrieving the information for the items from the library means and for assigning a unique identification code to the retrieved information

Lang also is not concerned with providing a distribution method responsive to user requests identifying information to be sent from a transmission system to remote locations. Accordingly Lang fails to teach or suggest the steps of the distribution method claimed in independent claim 18.

Because Lang is directed to an improved VCR, Lang does not disclose a receiving system which is responsive to user requests for items from a source material library. While Lang mentions that video libraries are "envisioned," there is no disclosure of how material would be requested or retrieved from such libraries. See col. 7, line 67 of Lang. Particularly, Lang does not teach that user requests will cause items stored in a source material library to be sent from a transmitter to a receiving system, as called for in independent claim 22.

2. **Monslow et al., U.S. Patent No. 4,890,320**

Monslow et al., which is also described in the Background of Invention section of the specification, discloses a system which broadcasts viewer-selected material to a viewer at a prescribed time. However, the Monslow et al. system requires multiple users in multiple locations to view the requested material at the time it is broadcast, rather than allowing each viewer to choose his or her own viewing time. Once the choice is made, the user cannot change it because Monslow et al. does not provide for buffering a

LAW OFFICES
INNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

selected program so that the user can play it back at a desired time. See col. 6, line 60 through col. 7, line 28.

Further, in Monslow et al., the viewer-chosen program is transmitted to the television receiver of the requesting viewer. The requestor therefore does not have a choice of where the information that they request is sent. See the Abstract, Fig. 1, and col. 5, lines 27-39.

With regard to the claims, Monslow et al. does not teach or suggest the preprocessing elements called for in independent claim 1, the buffering step required in independent claim 18, or the storage means recited in independent claim 22.

3. Abraham, U.S. Patent No. 4,590,516

Abraham '516, which is another reference described in the Background of Invention portion of the specification, discloses a combined telephone and modulated carrier communication system. In Abraham '516, a user at a subscriber station 10 uses a standard telephone set 16 to contact program service station 12. The user selects a program from the library 36. A telephone communication link is established with the station 12 through the switching gear 20, and when the program selection operation from the library 36 is completed, a return signal is heard by the subscriber through the telephone. The user then hangs up the telephone which initiates program readout and sets the billing computer 28. A timed message period precedes transmission of the program. After the message period ends, the selected program is transmitted and the billing operation is performed. During the message period,

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

the subscriber can call up and cancel transmission of the program. See col. 4, line 38 through col. 5, line 3 and Fig. 1.

The system in Abraham '516 uses a dedicated signal path, rather than multiple common carriers, to transmit audio/video programming. Also, the receiver has no storage capability. Furthermore, the system provides for only display functions, which limits viewing to the time at which the material is ordered, and, like Monslow et al., the Abraham '516 system does not allow for the stop, pause, and multiple viewing functions of existing VCR technology.

Because Abraham '516, like Monslow et al., discloses relative simultaneous transmission of the requested material, this reference does not teach or suggest the compressed data storage means recited in independent claim 1, the buffering step required in claim 18, or the storage means called for in claim 22.

4. Walter, U.S. Patent No. 4,506,387

Walter, also discussed in the Background of Invention section of the specification, discloses a fully dedicated, multi-conductor, optical cable system that is wired to the viewer's premises. Although the system affords the viewer some control over accessing the material, it requires that a location designated by the viewer be wired with a dedicated cable. The Walter system further requires that the viewer be at that location for both ordering and viewing the audio/video material.

In Walter, information is retrieved from the memory modules 24-35. A host computer 20 controls output of desired material over optical fibers 129, 94, 96, 98, and 100 to data receiving

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

system 146. After selection from memory modules, there is no provision in Walter for storing the requested material in a compressed form. Therefore, Walter does not teach or suggest the preprocessing elements required in independent claim 1. Additionally, there is no teaching or suggestion in Walter that only a portion of an item stored in the library modules 24-34 can be sent to a subscriber, as further recited in independent claim 1.

Walter shows memory module 102 in the data receiving system 14, but there is no indication in Walter that compressed data is stored in memory module 102. Because non-compressed data is stored in the memory module, the user is limited as to the quantity of data which may be stored therein. Accordingly Walter does not teach or suggest buffering the received information, which is compressed, at the remote location, as recited in independent claim 18, or a receiver including storage means, coupled to receiver format conversion means, for storing compressed formatted data, as set forth in independent claim 22.

B. REFERENCES CITED IN THE SEARCH REPORT OF 09/07/90

1. Lumelsky, et al., U.S. Patent No. 4,949,169

Lumelsky et al. discloses an audio-video data interface for a high speed communication link in a video-graphics display window environment. A "primary objective" of Lumelsky et al. is to "provide a simple interface to a high speed digital communication network such that full motion video window images and its audio sampled by one node can be transmitted over the network to other nodes." See col. 5, lines 25-30 and Figs. 1A and 1B.

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

Because Lumelsky et al. is directed to interface architecture for connecting video display devices, it is not directed to a transmission system or a receiving system, as respectively recited in independent claims 1 and 22. Further, because Lumelsky et al. is concerned only with interconnecting display devices, it is not concerned with the distribution of information from a transmitter to a receiver, and therefore it does not teach or suggest buffering received information at a remote location, as recited in the distribution method of independent claim 18.

2. **Fenwick et al., U.S. Patent No. 4,947,244**

Fenwick et al. discloses a video program distribution system. The system includes controller 116 which receives and responds to user requests from monitors 102. The controller 116 also controls the switch 114 which is connected to the video sources 112. See col. 3, lines 29-36. The video sources 112 are video cassette players. The number of video cassette players used in a system will vary between thirty-two and ninety depending on the range of programming desired. See col. 5, lines 15-20.

In Fenwick et al., the video sources 112 must be manually controlled. Because the system is manually controlled, Fenwick et al. does not disclose a transmission system including identification encoding means for retrieving the information for the items from a library and for assigning a unique identification code to the retrieved information, as required in independent claim 1. Moreover, in Fenwick et al., information is sent directly from video sources 112 to the monitors 102 and is not stored prior to replay. Therefore, Fenwick et al. also does not

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202-408-4000

disclose buffering received information at a remote location, as required in independent claim 18 or a storage device at the receiver, as required in independent claim 22.

3. Boulton, U.S. Patent No. 4,937,821

The Boulton patent discloses an information delivery system for delivering reference information to a plurality of users. In Boulton, information from data sources 12 is encoded in encoders 14 and mixed in mixers 16 and 18 for delivery over a cable 24 to a user. The information is neither transmitted nor received by the user in a compressed form. Boulton also does not show the requested information being stored prior to transmission to a user. Boulton therefore does not teach or suggest a transmission system including the preprocessing steps or compressed data storing means, as recited in independent claim 1, or the step of storing audio and video information in a compressed data form, as recited in independent claim 18. Because Boulton also does not show the requested information being stored at the receiving device of a user, Boulton does not teach or suggest storage means for storing compressed formatted data, as recited in independent claim 22.

4. Eggers et al., U.S. Patent No. 4,920,432

The Eggers et al. patent discloses a system for random access to an audio video library with independent selection and display at each of a plurality of remote locations. The system in Eggers et al. includes a video filer 2, which is a microprocessor-controlled mechanical storage and retriever device, that transports discrete data record items, i.e., video cartridges,

LAW OFFICES
FINNEGAN, HENDERSON
FARABOW, GARRETT
& DUNNER
1300 I STREET, N. W.
WASHINGTON, DC 20005
1-202 408-4000